



Grand Bay

National Estuarine Research Reserve



Location: Jackson County in southeastern Mississippi, on the Alabama border

Date Designated: 1999

Area Protected: 18,049 acres

Web Address: grandbaynerr.org

Management: Daily oversight is provided by the Mississippi Department of Marine Resources. NOAA's Office for Coastal Management provides funding, national guidance, and technical assistance.

Access and Infrastructure

- The Grand Bay Coastal Resources Center—the reserve's headquarters—is a LEED Gold-certified facility. It features an interpretive area and an exhibit, "Living on the Edge: The Nature of Change."
- The Grand Bay National Wildlife Refuge, spanning 10,188 acres of coastal Mississippi and Alabama, partially overlays the reserve.
- The reserve offers kayaking and canoeing on Bayou Heron and Bayou Cumbest and is home to the Oak Grove Birding Trail and Savanna Trail Boardwalk, which leads from the resources center through pine savanna, opening into a freshwater marsh.

The Grand Bay National Estuarine Research Reserve represents one of the most biologically diverse and productive ecosystems in the northern Gulf of Mexico, supporting rare and endangered plant and animal species and important marine fisheries. The area is rich with history, featuring many archaeological sites.

Black needlerush marshes, maritime pine forests, pine savanna, salt pannes and pools, and pitcher plant bogs are found here. Many species of carnivorous plants and orchids are present in the higher savanna habitats. Sea turtles, bottlenose dolphins, and manatees can be found in the deeper waters of the reserve.

Research and monitoring play an important role in detecting environmental change. Focus areas include nutrient loading, sea level rise and erosion impacts, and the ecology of various unique habitats. The reserve also has a strong training and education component, dedicated to making coastal communities better by bringing data, tools, and training to the region's citizens, students, and decision makers.

NOAA Office for Coastal Management

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Interesting Things to Know

- The reserve is a stop along the Mississippi Coastal Birding Trail, a collection of sites chosen for their quality habitats and species diversity. Over 250 bird species are supported by the reserve, including pelicans, ospreys, marsh birds, waterfowl, wading birds, shorebirds, and migratory songbirds.
- The reserve is known to offer a range of interesting sightings, including bald eagles, swallow-tailed kites, Atlantic stingrays, carnivorous pitcher plants, and even the occasional bobcat and American alligator.
- Each April, the reserve partners with the Mississippi Department of Marine Resources to host one of the most popular educational festivals on the coast, Celebrate the Gulf.
- To engage the community and highlight its resources, the reserve regularly hosts activities such as nature photography, boat tours, and cast netting.

About the Programs

The nation's 29 research reserves represent a tremendous asset, protecting over 1.3 million acres and providing habitat where plants and wildlife thrive. Community benefits include recreation, flood protection, and water filtration. Because the following programs are offered at each reserve, the system is able to make an environmental impact at the local level, as well as nationally.

Stewardship. Site protection and enhancement are part of every research reserve. Activities may include managing land and water resources, restoring habitat, controlling invasive species, maintaining biodiversity, and reducing environmental stressors.

Research. Reserve research is focused on how environmental factors—such as nutrient loading, climate change, invasive species, and storms—impact coastal ecosystems. The System-Wide Monitoring Program, or SWMP, provides long-term data on water quality, weather, biological communities, habitat, and land-use and land-cover characteristics. This combination of research and data provides a strong, science-based foundation for addressing coastal management challenges.

Training. To provide the community with the information and skills needed to integrate coastal science into local decision-making and everyday lives, reserves provide specialized courses and information. Reserve training professionals are active in community planning and improvement initiatives.

Education. Local data generated at the reserve provide students with a firsthand experience of local environmental conditions. Educators lead student, teacher, and citizen field trips that are life-changing experiences, as participants see, feel, and smell what makes an estuary one of the most remarkable places in the world.

To learn more, visit coast.noaa.gov/nerrs.

Office for Coastal Management

